U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report No: 50-397/88-45

Docket No: 50-397

Licensee: Washington Public Power Supply System
P. O. Box 968
Richland, WA 99352

Facility Name: Washington Nuclear Project No. 2 (WNP-2)

Inspection at: WNP-2 Site near Richland, Washington

Inspection Conducted: December 12 - January 8, 1989

Inspectors: for P H Johnson 2/13/89
C. J. Bosted, Senior Resident Inspector Date Signed

for P H Johnson 2/13/89
R. C. Sorensen, Resident Inspector Date Signed

Approved by: P H Johnson 2/13/89
P. H. Johnson, Chief Date Signed
Reactor Projects Section 3

Summary:

Inspection on December 12 - January 8, 1989 (50-397/88-45)

Areas Inspected: Routine inspection by the resident inspectors of control room operations, licensee action on previous inspection findings, engineered safety feature (ESF) status, surveillance program, maintenance program, licensee event reports, special inspection topics, procedural adherence, and review of periodic reports. During this inspection, Inspection Procedures 30703, 61726, 62703, 71707, 71710, 71714, 92701, 92702, 92720, and 93702 were covered.

Results: No violations or deviations were identified.

An observed strength was the operation of the plant at full power for the report period without any significant problems. An observed weakness, as discussed during the Management Meeting on January 5, 1989, was the number of entries by managers into the vital areas of the plant.

Three followup items were closed; no new items were opened.

DETAILS

1. Persons Contacted

L. Oxsen, Assistant Managing Director for Operations
D. Bouchey, Director, Licensing and Assurance
*C. McGilton, Manager Safety and Assurance
*C. Powers, Plant Manager
*J. Baker, Assistant Plant Manager
K. Cowan, Nuclear Safety Assurance Manager
C. Edwards, Quality Control Manager
*R. Graybeal, Health Physics and Chemistry Manager
*J. Harmon, Maintenance Manager
*A. Hosler, Licensing Manager
D. Kobus, Quality Assurance Manager
R. Koenigs, Technical Manager
*S. McKay, Operations Manager
J. Peters, Administrative Manager
W. Shaeffer, Assistant Operations Manager
*R. Webring, Assistant Maintenance Manager
M. Wuestefeld, Assistant Technical Manager

The inspectors also interviewed various control room operators, shift supervisors and shift managers, maintenance, engineering, quality assurance, and management personnel.

*Attended the Exit Meeting on January 6, 1989.

2. Plant Status

At the start of the inspection period, the plant was operating at 80% power. The plant reached 100% power on December 14 and operated at that power level through the end of the reporting period. On January 6; an increase in condensate conductivity was observed which required the plant to enter a chemistry procedure action level. The plant was subsequently shut down on January 7 to repair condenser tube leaks.

3. Previously Identified NRC Inspection Items (92701, 92702)

The inspectors reviewed records, interviewed personnel, and inspected plant conditions relative to licensee actions on previously identified inspection findings:

a. (Closed) Unresolved Item (397/87-19-08): Fire Threat to Shutdown Divisions and Oil Transfer Pump Rooms

This issue involved a postulated diesel fuel line failure in a diesel generator (DG) room with a subsequent fire. The fire sprinklers would actuate and could cause a burning fuel oil/water mixture to enter the common corridor outside from under the fire door and affect all three trains of DG cables.

The licensee responded by performing a calculation which showed that the drains were sized appropriately to be able to handle the flow from all 28 sprinklers in a DG room actuating at the same time. In addition, the licensee verified that all drains in all three DG rooms were unplugged. Also, two modifications were implemented in each DG room as follows. One installed curbs on the floor in front of the fire door leading into the corridor. The other cut openings in the bottom of doors leading to the outside environment. These modifications should preclude the occurrence of the type of scenario depicted above.

This item is closed.

b. (Closed) Unresolved Item (397/87-19-16): Constraints on the Use of the Automatic Depressurization System (ADS) Inhibit Switch

This concern from the NRC's safety system functional inspection (SSFI) involved the use of the ADS inhibit switch. Applicable WNP-2 emergency procedures had placed no constraints on its use. The original intent of the ADS inhibit switch was to override ADS actuation during an anticipated transient without scram (ATWS) event when the ADS function would not be desirable. However, no distinction was made in emergency procedures between ATWS events and loss-of-coolant accident (LOCA) events concerning the use of the inhibit switch.

The licensee revised applicable emergency procedures to specify the use of the ADS inhibit switch for ATWS events and the ADS 105-second timer reset button as needed for LOCA events.

This item is closed.

c. (Closed) Unresolved Item (397/87-19-34): Safety Parameter Display System (SPDS) Inconsistent with Commitments

This item involved a concern that the SPDS (also known as the Graphic Display System) cathode ray tubes (CRTs) were difficult to read from the Control Room Operator's desk, and even from in front of the control panels themselves.

The licensee replaced one worn out CRT and installed glare screens on both to make them more visible and readable.

This item is closed.

4. Operational Safety Verification (71707)

a. Plant Tours

The following plant areas were toured by the inspectors during the course of the inspection:

- Reactor Building

- Control Room
- Diesel Generator Building
- Radwaste Building
- Service Water Buildings
- Technical Support Center
- Turbine Generator Building
- Yard Area and Perimeter

b. The following items were observed during the tours:

(1) Operating Logs and Records. Records were reviewed against Technical Specification and administrative control procedure requirements.

(2) Monitoring Instrumentation. Process instruments were observed for correlation between channels and for conformance with Technical Specification requirements.

(3) Shift Manning. Control room and shift manning were observed for conformance with 10 CFR 50.54.(k), Technical Specifications, and administrative procedures. The attentiveness of the operators was observed in the execution of their duties and the control room was observed to be free of distractions such as non-work related radios and reading materials.

(4) Equipment Lineups. Valves and electrical breakers were verified to be in the position or condition required by Technical Specifications and administrative procedures for the applicable plant mode. This verification included routine control board indication reviews and conduct of partial system lineups. Technical Specification limiting conditions for operation were verified by direct observation.

(5) Equipment Tagging. Selected equipment, for which tagging requests had been initiated, was observed to verify that tags were in place and the equipment was in the condition specified.

(6) General Plant Equipment Conditions. Plant equipment was observed for indications of system leakage, improper lubrication, or other conditions that would prevent the system from fulfilling its functional requirements. Annunciators were observed to ascertain their status and operability. A periodic review of security records for the various managers' access into the plant's vital areas indicated that the number of visits was less than anticipated to ensure that management's policies and expectations were being addressed. This concern was discussed with licensee management during the Management Meeting conducted on January 5, 1989 (Meeting Report No. 50-397/89-05).

(7) Fire Protection. Fire fighting equipment and controls were observed for conformance with Technical Specifications and administrative procedures.

(8) Plant Chemistry. Chemical analyses and trend results were reviewed for conformance with Technical Specifications and administrative control procedures.

(9) Radiation Protection Controls. The inspectors periodically observed radiological protection practices to determine whether the licensee's program was being implemented in conformance with facility policies and procedures and in compliance with regulatory requirements. The inspectors also observed compliance with Radiation Exposure Permits, proper wearing of protective equipment and personnel monitoring devices, and personnel frisking practices. Radiation monitoring equipment was frequently monitored to verify operability and adherence to calibration frequency.

(10) Plant Housekeeping. Plant conditions and material/equipment storage were observed to determine the general state of cleanliness and housekeeping. Housekeeping in the radiologically controlled area was evaluated with respect to controlling the spread of surface and airborne contamination.

(11) Security. The inspectors periodically observed security practices to ascertain that the licensee's implementation of the security plans was in accordance with site procedures, that the search equipment at the access control points was operational, that the vital area portals were kept locked and alarmed, and that personnel allowed access to the protected area were badged and monitored and the monitoring equipment was functional.

No violations or deviations were identified.

5. Engineered Safety Feature System Walkdown (71707, 71710)

Selected engineered safety feature systems (and systems important to safety) were walked down by the inspectors to confirm that the systems were aligned in accordance with plant procedures. During the walkdown of the systems, items such as hangers, supports, electrical power supplies, cabinets, and cables were inspected to determine that they were operable and in a condition to perform their required functions. The inspectors also verified that the system valves were in the required position and locked as appropriate. The local and remote position indication and controls were also confirmed to be in the required position and operable.

Accessible portions of the following systems were walked down on the indicated dates.

System	Dates
Diesel Generator Systems, Divisions 1, 2, and 3.	December 22

Hydrogen Recombiners	December 26, January 2
Low Pressure Coolant Injection, (LPCI) Trains "A", "B", and "C"	December 26, January 2
Low Pressure Core Spray (LPCS)	December 20, 26, January 2
High Pressure Core Spray (HPCS)	December 20
Reactor Core Isolation Cooling (RCIC)	December 26, January 2
Scram Discharge Volume System	December 26, January 2
Standby Liquid Control (SLC) System	December 28, January 3
Standby Service Water System	December 14
125V DC Electrical Distribution, Divisions 1 and 2	December 21, 23
250V DC Electrical Distribution	December 21, 23

No violations or deviations were identified.

6. Surveillance Testing (61726)

a. Surveillance tests required to be performed by the Technical Specifications (TS) were reviewed on a sampling basis to verify that: (1) the surveillance tests were correctly included on the facility schedule; (2) a technically adequate procedure existed for performance of the surveillance tests; (3) the surveillance tests had been performed at the frequency specified in the TS; and (4) test results satisfied acceptance criteria or were properly dispositioned.

b. Portions of the following surveillance tests were observed by the inspectors on the dates shown:

Procedure	Description	Dates Performed
7.4.3.3.1.55	High Pressure Core Spray (HPCS) Level 8 Trip	December 15
7.4.3.7.1.8	Control Room Ventilation Rad Monitor Channel Functional Test (CFT)	December 19
7.4.5.1.21	Automatic Depressurization System Accumulator Backup Low Pressure Alarm CC	December 28

No violations or deviations were identified.

7. Plant Maintenance (62703)

During the inspection period, the inspectors observed and reviewed documentation associated with maintenance and problem investigation activities to verify compliance with regulatory requirements and with administrative and maintenance procedures, required QA/QC involvement, proper use of safety tags, proper equipment alignment and use of jumpers, personnel qualifications, and proper retesting. The inspectors verified that reportability for these activities was correct.

The inspectors witnessed portions of the following maintenance activity:

Description	Date Performed
Repair of MS-PCV-18A per AT 5892	January 8

No violations of NRC requirements or deviations were identified.

8. Cold Weather Preparations (71714)

The inspector reviewed the licensee's procedure for implementing freeze protection, 1.3.37 - Cold Weather Operations. In addition, the inspector accompanied the equipment operator responsible for verifying implementation and adequacy of the various freeze protection measures during his rounds of the plant. The inspector questioned the equipment operator on various aspects of the procedure and of the equipment log in which he recorded various data. He appeared to be very knowledgeable concerning freeze protection measures.

The applicable procedure indicated that the operator should check room heating thermostats to verify proper settings at 70 degrees. Although temperatures of the spaces visited appeared to be proper and heating units appeared to be functioning, the equipment operator's log did not contain provisions for documenting this verification. This was discussed with plant management at the monthly exit meeting.

No violations or deviations were identified.

9. Review of Periodic and Special Reports (90713)

Periodic and special reports submitted by the licensee pursuant to Technical Specifications 6.9.1 and 6.9.2 were reviewed by the inspector.

This review included the following considerations: the report contained the information required to be reported by NRC requirements; test results and/or supporting information were consistent with design predictions and performance specifications; and the reported information appeared valid. Within this scope, the following report was reviewed by the inspectors.

- Monthly Operating Report for November 1988.

No violations or deviations were identified.

10. Review of NRC Bulletin

As requested by action item e. of Supplement 1 to NRC Bulletin 85-03, "Motor-Operated Valve Common Mode Failures During Plant Transients Due to Improper Switch Settings," the licensee's letters dated May 13 and September 9, 1988 identified the additional valves to be addressed in their program in response to the original Bulletin.

Review of these responses by NRR indicated that the licensee's selection of the additional valves to be addressed in their program in response to the original bulletin meets the requirements of action item e. of the supplement to the Bulletin, and is acceptable.

11. Exit Meeting (30703)

The inspectors met with licensee management representatives periodically during the report period to discuss inspection status, and an exit meeting was conducted with the indicated personnel (refer to paragraph 1) on January 6, 1989. The scope of the inspection and the inspector's findings, as noted in this report, were discussed and acknowledged by the licensee representatives.

The licensee did not identify as proprietary any of the information reviewed by or discussed with the inspectors during the inspection.